CHROMagar™ VRE

Chromogenic medium for detection of Van A/Van B VR*E. faecalis* & VR*E. faecium.*

Instructions For Use
For Research Use Only (RUO).
Not for use in diagnostic procedures.

ENGLISH

Instructions For Use

REFERENCES

Pack Size		Ordering References		Base		Supplement
5000 mL (250 Tests of 20 mL)	=	VR952	=	VR952(B) Weight: 336.5 g	+	VR952(S) Weight: 0.3 g
10 kg (7500 Tests of 20 mL)	=	VR953-10kg	=	VR953-10kg(B) Weight: 10 kg	+	VR953-150(S) Weight: 9 g

INTENDED USE

CHROMagar™ VRE is a selective and differential chromogenic medium, containing 6 mg/L of vancomycin, intended for use in the qualitative direct detection of *vanA/vanB* transmissible VRE-type gastrointestinal colonization with vancomycin-resistant *Enterococcus faecium* and *Enterococcus faecalis* (VRE) to aid in the prevention and control of VRE in healthcare settings. The test is performed with rectal swab and stools from patients to screen for VRE colonization. Results can be interpreted after 24 h of aerobic incubation at 35-37 °C.

The medium can also be used as an early warning indicator for diagnostic tests of infections to signal the possible presence of multi drug-resistant bacteria. This use does not replace the institution's protocols.

CHROMagar™ VRE is not intended to diagnose VRE infection nor to guide nor monitor treatment for infections. A lack of growth or the absence of pink colonies on CHROMagar™ VRE does not preclude the presence of VRE. Further identification, susceptibility testing, and epidemiological typing is needed on suspect colonies.

COMPOSITION

The product is composed of a powder base (B) and 1 supplement (S).

Product =	Base (B)	+	Supplement (S)
Total g/L	67.3 g/L		0.06 g/L
Composition g/L	Agar 15.0 Peptones and yeast extract 20.0 Salts 5.0 Chromogenic mix 27.3		Selective mix 0.06
Aspect	Powder Form		Powder Form
STORAGE	**15-30 °C**		**2-8 °C**
FINAL MEDIA pH	6.9 +/- 0.5		

Need some Technical Documents?

Available for download on www.CHROMagar.com

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

PREPARATION **(Calculation for 1 L)**

Step 1
Preparation of the base CHROMagar™ VRE Base (B)

- Disperse slowly 67.3 g of powder base in 1 L of purified water.
- Stir until agar is well thickened.
- Autoclave at 110 °C during 5 min.

DO NOT AUTOCLAVE AT 121 °C. DO NOT HEAT LONGER THAN 5 MIN.

- Cool in a water bath to 45-50 °C. Swirl or stir gently to homogenize.

Step 2
Preparation of the Supplement (S)

- Prepare a stock solution of the CHROMagar™ VRE supplement: Add 60 mg to 1 mL (**0.5 mL ethanol/0.5 mL sterile purified water).**
- Swirl well until complete dissolution.

Advice 2: This CHROMagar™ VRE supplement stock solution should be used immediately after preparation, or can be stored at -20 °C and used within one month.

Final Media	HELPING CALCULATION
1 L	60 mg into 0.5 mL of ethanol + 0.5 mL of sterile water
5 L	300 mg into 2.5 mL of ethanol + 2.5 mL of sterile water

Step 3
Mixing of the prepared base (B) and the prepared supplement (S)

- Add 1 mL of CHROMagar™ VRE supplement solution to CHROMagar™ VRE base cooled at 45-50 °C (final 60 mg/L).
- Swirl gently to homogenize.
- Pour into sterile Petri dishes
- Let it solidify and dry.

Final Media	HELPING CALCULATION
1 L	Add 1 mL of supplement to the prepared base
5 L	Add 5 mL of supplement to the prepared base

Storage

- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to one month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.

CHROMagar™ VRE

SPECIMEN COLLECTION AND HANDLING

CHROMagar™ VRE can be used with the following specimens: stools and rectal swabs.

Use of transport devices approved for collection of such specimens is recommended.

MATERIAL REQUIRED BUT NOT PROVIDED

Standard microbiological laboratory material for culture media preparation, control, streaking, incubation and waste disposal.

INOCULATION

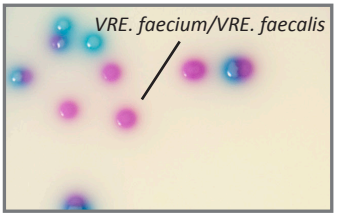
Related samples can be processed by direct streaking on the plate, as well as an appropriate prior enrichment step is possible.

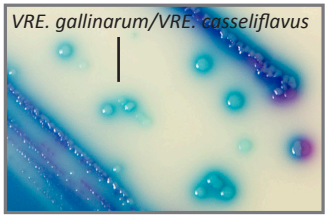
- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate
- Incubate in aerobic conditions at 35-37 °C for 24 hours.

INTERPRETATION

Microorganism	Typical colony appearance
VR*E. faecium* VR*E. faecalis*	→ pink to mauve
VR*E. gallinarum* VR*E. casseliflavus*	→ blue or inhibited
Other Gram (+) bacteria	→ inhibited
Gram (-) bacteria	→ inhibited
Yeasts and mould	→ mostly inhibited

Typical colony appearance





The pictures shown are not contractual.

PERFORMANCE

	Analytical data *	Clinical data**	
		CHROMagar™ VRE	Reference medium (VRE Select)
Sensitivity	100 %	95.5 %	68.2 %
Specificity	100 %	90.4 %	91.8 %

* Data obtained after a 24 h incubation at 37 °C in aerobic conditions in the study "A Novel chromogenic agar medium for the detection of vancomycin resistant Enterococci (VRE)". Merlino *et al.*, Poster ASM 2007.

** Data obtained after a 24 h incubation at 35-37 °C in aerobic conditions with 95 rectal swabs in the study "Evaluation of three chromogenic media for detection of vancomycin-resistant Enterococci in a tertiary-care hospital". Miller *et al.*, Poster CACMID 2011.

LIMITATIONS AND COMPLEMENTARY TESTS

- Vancomycin R-type and identification at the species level should be determined and confirmed by further testing.
- Some rare strains of *Lactobacilli, Pediococcus* can sometimes appear as pinpoint mauve colonies. However, they can be differentiated with PYR test: PYR(+) --> VR*E* ; PYR(-) --> *Lactobacilli, Pediococcus.*
- Further to 24 h incubation, some rare strains of *E. gallinarum* can sometimes appear as mauve colonies.
- The final identification may required additional testing such as biochemical tests or mass spectrometry (e.g. MALDI-TOF) which can be done directly from the suspicious colonies observed on the medium.

QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms.
Good preparation of the medium can be tested, isolating the following ATCC strains:

Microorganism	Typical colony appearance
VR*E. faecalis* ATCC® 51575	→ mauve, small
E. faecalis ATCC® 29212	→ inhibited
E. casseliflavus ATCC® 700327	→ inhibited
E. gallinarum ATCC® 49573	→ inhibited
E. coli ATCC® 25922	→ inhibited
S. aureus ATCC® 25923	→ inhibited

WARNINGS AND PRECAUTIONS

- For Research Use Only (RUO). Not for use in diagnostic procedures.
- This laboratory product should be used only by trained personnel (healthcare professional, etc). Wear appropriate protective clothing, gloves and eye/face protection and handle appropriately with procedures and good laboratory practices.
- Use of the medium may be difficult for people who have problems recognising colours.
- For a good microbial detection, collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.
- Culture media should not be used as manufacturing material or components.
- Do not ingest or inhale the product.
- Do not use the product after the expiry date.
- Do not use the product if it show any evidence of contamination or any sign of deterioration.
- Do not use the product if the packaging is damaged.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Unappropriate storage may affect the shelf life of the product.
- Recap the bottles/vials tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- Reading and interpretation should be performed using isolated colonies.

• Interpretation of the test results should be made taking into consideration colonial, microscopic morphology and the results of any other tests performed.
• Laboratory, chemical or biohazardous wastes must be handled and discarded in accordance with all local and national regulations.
• For hazard and precaution recommendations related to some chemical components in this medium, please refer to the pictogram(s) mentioned on the labels. The Safety Data Sheet (SDS) is available on www.chromagar.com

DISPOSAL OF WASTE

After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121 °C for at least 20 minutes.

LITERATURE REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.
Web link: www.chromagar.com/product/chromagar-vre/

IFU/LABEL INDEX

Catalogue reference


Consult instructions for use

Quantity of powder sufficient for X liters of media


Expiry date


Required storage temperature


Store away from humidity


Protect from light


Manufacturer

NT-EXT-048 USA V8.0 / 14-Jun-22

CHROMagar™
The Chromogenic Media Pioneer

CHROMagar 4 place du 18 juin 1940
75006 Paris - France
Email: CHROMagar@CHROMagar.com
Tel +33 (0)1.45.48.05.05. Website: www.CHROMagar.com